



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,757	10/23/2003	Yoshiki Kuroki	KURO3001/EM	5355

23364 7590 10/16/2006

BACON & THOMAS, PLLC  
625 SLATERS LANE  
FOURTH FLOOR  
ALEXANDRIA, VA 22314

EXAMINER
----------

HOPKINS, ROBERT A

ART UNIT	PAPER NUMBER
----------	--------------

1724

DATE MAILED: 10/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/690,757

Applicant(s)

KUROKI ET AL.

Examiner

Robert A. Hopkins

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2,4-6 and 18-22 is/are allowed.
- 6) ☒ Claim(s) 1,7,8,13-17 and 23 is/are rejected.
- 7) ☒ Claim(s) 3 and 9-12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 10-23-03, 5-5-05.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,7,8,13 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Dyson(4593429).

Dyson teaches a vacuum cleaner comprising a first dirt separation unit having a first inlet port(14) through which a suction air stream including dirt particles is introduced thereinto; and a second dirt separation unit having a second inlet port(18) through which the air stream introduced in the first dirt separation unit is introduced into the second dirt separation, wherein the first and second inlet port are disposed not to face each other. Dyson further teaches wherein a guide member is provided for circulating the air stream introduced into the first dirt separation unit. Dyson further teaches wherein the first dirt separation unit separates dirt particles from the air stream by using a centrifugal force thereof. Dyson further teaches wherein the second dirt separation unit has an outer wall portion defining a substantially circular space, and an inner wall portion for circulating the suction air stream including dirt particles is disposed along the outer wall portion.

Claims 14-16 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Dyson(4593429).

Art Unit: 1724

Dyson teaches a vacuum cleaner comprising an electric blower(3) for generating a suction air stream, a suction inlet unit for suctioning dirt particles by the suction air stream, and a dirt collecting unit for separating and trapping the dirt particles from the suction air stream, wherein the dirt collecting unit includes a bulky dirt containing chamber having an inlet port(14) through which the suction air stream from the suction inlet unit is introduced thereinto and a fine dirt separation chamber for separating the suction air stream dirt particles passing through the bulky dirt containing chamber. Dyson further teaches wherein the bulky dirt containing chamber communicates with the fine dirt separation chamber through a bulky dirt trapping member. Dyson further teaches wherein the fine dirt separation chamber is a centrifugal separation chamber in which dirt particles are centrifugally separated from the suctioning air stream.

Claims 14-17 and 23 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Bair et al(6428589).

Bair et al teaches a vacuum cleaner comprising an electric blower for generating a suction air stream, a suction inlet unit for suctioning dirt particles by the suction air stream, and a dirt collecting unit for separating and trapping the dirt particles from the suction air stream, wherein the dirt collecting unit includes a bulky dirt containing chamber having an inlet port(80) through which the suction air stream from the suction inlet unit is introduced thereinto and a fine dirt separation chamber for separating the suction air stream dirt particles passing through the bulky dirt containing chamber. Bair et al further teaches wherein the bulky dirt containing chamber communicates with the fine dirt separation chamber through a bulky dirt trapping member. Bair et al further

Art Unit: 1724

teaches wherein the fine dirt separation chamber is a centrifugal separation chamber in which dirt particles are centrifugally separated from the suctioning air stream. Bair et al further teaches a dirt containing chamber lid openably covering the dirt containing chamber, wherein when the dirt containing chamber lid is opened, the bulky dirt containing chamber and the fine dirt containing chamber are simultaneously opened to outside".

***Allowable Subject Matter***

Claims 2,4-6 and 18-22 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Claim 2 recites "wherein the second dirt separation unit communicates with the electric blower through a first communication opening and the first dirt separation unit communicates with the electric blower through a second communication opening".

Dyson teaches a first dirt separation unit and a second dirt separation unit, however only the second dirt separation unit communicates with an electric blower. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide wherein the second dirt separation unit communicates with the electric blower through a first communication opening and the first dirt separation unit communicates with the electric blower through a second communication opening because Dyson does not suggest such a modification. Claims 4-6 and 18-22 depend on claim 2 and hence are also allowed.

Claims 3,9-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 3 recites "wherein a filter is installed on the second inlet port of the second dirt separation unit". Dyson teaches a tangential inlet, but does not teach a filter installed on the inlet. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide a filter which is installed on the second inlet port of the second dirt separation unit because dyson does not suggest such a modification.

Claim 9 recites "further comprising a dirt collecting cover having a first communication opening which communicates with the second dirt separation unit, the dirt collecting cover being disposed on a downstream side of the second dirt separation unit, wherein the dirt collecting cover is detachably connected to the second dirt separation unit". Dyson fails to teach a dirt collecting cover which is detachably connected to the second dirt separation unit. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide a dirt collecting cover which is detachably connected to the second dirt separation unit because Dyson does not suggest such a modification.

Claim 10 recites "wherein the first dirt separation unit has a plurality of accumulation sections in which dirt particles separated are accumulated". Dyson teaches a dirt separation unit having a single accumulation section. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to

Art Unit: 1724

provide a first dirt separation unit which has a plurality of accumulation sections in which dirt particles separated are accumulated because Dyson does not suggest such a modification. Claims 11 and 12 depend on claim 10 and hence would also be allowable upon incorporation of claims 8 and 10 into claim 1.

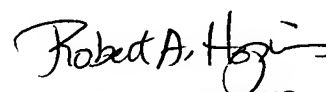
Art Unit: 1724

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert A. Hopkins whose telephone number is 571-272-1159. The examiner can normally be reached on Monday-Thursday, 7:30am-5pm, every Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Rah  
October 12, 2006

  
**ROBERT A. HOPKINS**  
**PRIMARY EXAMINER**  
